Sharad Mehrotra
Daniel D. Zeng
Hsinchun Chen
Bhavani Thuraisingham
Fei-Yue Wang (Eds.)

LNCS 3975

Intelligence and Security Informatics

IEEE International Conference
on Intelligence and Security Informatics, ISI 2006
San Diego, CA, USA, May 2006, Proceedings

Springer

Sharad Mehrotra Daniel D. Zeng
Hsinchun Chen Bhavani Thuraisingham
Fei-Yue Wang (Eds.)

Intelligence and Security Informatics

IEEE International Conference
on Intelligence and Security Informatics, ISI 2006
San Diego, CA, USA, May 23-24, 2006
Proceedings

Springer

Volume Editors

Sharad Mehrotra
University of California at Irvine
Computer Science Department
Irvine, CA 92697, USA
E-mail: sharad@ics.uci.edu

Daniel D. Zeng
Hsinchun Chen
University of Arizona
MIS Department
Tucson, AZ 85721, USA
E-mail: {zeng,hchen}@eller.arizona.edu

Bhavani Thuraisingham
University of Texas at Dallas
Department of Computer Science
Richardson, Texas, USA
E-mail: bhavani.thuraisingham@utdallas.edu

Fei-Yue Wang
University of Arizona
Industrial and Systems Engineering
Tucson, AZ 85721, USA
and
Chinese Academy of Sciences
Beijing, China
E-mail: feiyue.wang@sie.arizona.edu

Library of Congress Control Number: 2006925625

CR Subject Classification (1998): H.4, H.3, C.2, H.2, D.4.6, K.4.1, K.5, K.6

LNCS Sublibrary: SL 3 – Information Systems and Application, incl. Internet/Web and HCI

ISSN 0302-9743
ISBN-10 3-540-34478-0 Springer Berlin Heidelberg New York
ISBN-13 978-3-540-34478-0 Springer Berlin Heidelberg New York

Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India
Printed on acid-free paper SPIN: 11760146 06/3142 5 4 3 2 1 0

Lecture Notes in Computer Science 3975

Commenced Publication in 1973
Founding and Former Series Editors:
Gerhard Goos, Juris Hartmanis, and Jan van Leeuwen

Editorial Board

Lecture Notes in Computer Science

For information about Vols. 1–3896

please contact your bookseller or Springer

Vol. 3994: V.N. Alexandrov, G.D. van Albada, P.M.A. Sloot, J. Dongarra (Eds.), Computational Science – ICCS 2006, Part IV. XXIX, 1094 pages. 2006.

Vol. 3993: V.N. Alexandrov, G.D. van Albada, P.M.A. Sloot, J. Dongarra (Eds.), Computational Science – ICCS 2006, Part III. XXX, 1138 pages. 2006.

Vol. 3992: V.N. Alexandrov, G.D. van Albada, P.M.A. Sloot, J. Dongarra (Eds.), Computational Science – ICCS 2006, Part II. XXIX, 1121 pages. 2006.

Vol. 3991: V.N. Alexandrov, G.D. van Albada, P.M.A. Sloot, J. Dongarra (Eds.), Computational Science – ICCS 2006, Part I. CCXX, 1090 pages. 2006.

Vol. 3987: M. Hazas, J. Krumm, T. Strang (Eds.), Location- and Context-Awareness. X, 289 pages. 2006.

Vol. 3986: K. Stølen, W.H. Winsborough, F. Martinelli, F. Massacci (Eds.), Trust Management. XIV, 474 pages. 2006.

Vol. 3984: M. Gavrilova, O. Gervasi, V. Kumar, C.J. K. Tan, D. Taniar, A. Laganà, Y. Mun, H. Choo (Eds.), Computational Science and Its Applications - ICCSA 2006, Part V. XXV, 1045 pages. 2006.

Vol. 3983: M. Gavrilova, O. Gervasi, V. Kumar, C.J. K. Tan, D. Taniar, A. Laganà, Y. Mun, H. Choo (Eds.), Computational Science and Its Applications - ICCSA 2006, Part IV. XXVI, 1191 pages. 2006.

Vol. 3982: M. Gavrilova, O. Gervasi, V. Kumar, C.J. K. Tan, D. Taniar, A. Laganà, Y. Mun, H. Choo (Eds.), Computational Science and Its Applications - ICCSA 2006, Part III. XXV, 1243 pages. 2006.

Vol. 3981: M. Gavrilova, O. Gervasi, V. Kumar, C.J. K. Tan, D. Taniar, A. Laganà, Y. Mun, H. Choo (Eds.), Computational Science and Its Applications - ICCSA 2006, Part II. XXVI, 1255 pages. 2006.

Vol. 3980: M. Gavrilova, O. Gervasi, V. Kumar, C.J. K. Tan, D. Taniar, A. Laganà, Y. Mun, H. Choo (Eds.), Computational Science and Its Applications - ICCSA 2006, Part I. LXXV, 1199 pages. 2006.

Vol. 3979: T.S. Huang, N. Sebe, M.S. Lew, V. Pavlović, T. Kölsch, A. Galata, B. Kisačanin (Eds.), Computer Vision in Human-Computer Interaction. XII, 121 pages. 2006.

Vol. 3978: B. Hnich, M. Carlsson, F. Fages, F. Rossi (Eds.), Recent Advances in Constraints. VIII, 179 pages. 2006. (Sublibrary LNAI).

Vol. 3976: F. Boavida, T. Plagemann, B. Stiller, C. Westphal, E. Monteiro (Eds.), Networking 2006. Networking Technologies, Services, and Protocols; Performance of Computer and Communication Networks; Mobile and Wireless Communications Systems. XXVI, 1276 pages. 2006.

Vol. 3975: S. Mehrotra, D.D. Zeng, H. Chen, B. Thuraisingham, F.-Y. Wang (Eds.), Intelligence and Security Informatics. XXII, 772 pages. 2006.

Vol. 3970: T. Braun, G. Carle, S. Fahmy, Y. Koucheryavy (Eds.), Wired/Wireless Internet Communications. XIV, 350 pages. 2006.

Vol. 3968: K.P. Fishkin, B. Schiele, P. Nixon, A. Quigley (Eds.), Pervasive Computing. XV, 402 pages. 2006.

Vol. 3967: D. Grigoriev, J. Harrison, E.A. Hirsch (Eds.), Computer Science – Theory and Applications. XVI, 684 pages. 2006.

Vol. 3966: Q. Wang, D. Pfahl, D.M. Raffo, P. Wernick (Eds.), Software Process Change. XIV, 356 pages. 2006.

Vol. 3965: M. Bernardo, A. Cimatti (Eds.), Formal Methods for Hardware Verification. VII, 243 pages. 2006.

Vol. 3964: M. Ü. Uyar, A.Y. Duale, M.A. Fecko (Eds.), Testing of Communicating Systems. XI, 373 pages. 2006.

Vol. 3962: W. IJsselsteijn, Y. de Kort, C. Midden, B. Eggen, E. van den Hoven (Eds.), Persuasive Technology. XII, 216 pages. 2006.

Vol. 3960: R. Vieira, P. Quaresma, M.d.G.V. Nunes, N.J. Mamede, C. Oliveira, M.C. Dias (Eds.), Computational Processing of the Portuguese Language. XII, 274 pages. 2006. (Sublibrary LNAI).

Vol. 3959: J.-Y. Cai, S. B. Cooper, A. Li (Eds.), Theory and Applications of Models of Computation. XV, 794 pages. 2006.

Vol. 3958: M. Yung, Y. Dodis, A. Kiayias, T. Malkin (Eds.), Public Key Cryptography - PKC 2006. XIV, 543 pages. 2006.

Vol. 3956: G. Barthe, B. Gregoire, M. Huisman, J.-L. Lanet (Eds.), Construction and Analysis of Safe, Secure, and Interoperable Smart Devices. IX, 175 pages. 2006.

Vol. 3955: G. Antoniou, G. Potamias, C. Spyropoulos, D. Plexousakis (Eds.), Advances in Artificial Intelligence. XVII, 611 pages. 2006. (Sublibrary LNAI).

Vol. 3954: A. Leonardis, H. Bischof, A. Pinz (Eds.), Computer Vision – ECCV 2006, Part IV. XVII, 613 pages. 2006.

Vol. 3953: A. Leonardis, H. Bischof, A. Pinz (Eds.), Computer Vision – ECCV 2006, Part III. XVII, 649 pages. 2006.

Vol. 3952: A. Leonardis, H. Bischof, A. Pinz (Eds.), Computer Vision – ECCV 2006, Part II. XVII, 661 pages. 2006.

Vol. 3951: A. Leonardis, H. Bischof, A. Pinz (Eds.), Computer Vision – ECCV 2006, Part I. XXXV, 639 pages. 2006.

Vol. 3950: J.P. Müller, F. Zambonelli (Eds.), Agent-Oriented Software Engineering VI. XVI, 249 pages. 2006.

Vol. 3947: Y.-C. Chung, J.E. Moreira (Eds.), Advances in Grid and Pervasive Computing. XXI, 667 pages. 2006.

Vol. 3946: T.R. Roth-Berghofer, S. Schulz, D.B. Leake (Eds.), Modeling and Retrieval of Context. XI, 149 pages. 2006. (Sublibrary LNAI).

Vol. 3945: M. Hagiya, P. Wadler (Eds.), Functional and Logic Programming. X, 295 pages. 2006.

Vol. 3944: J. Quiñonero-Candela, I. Dagan, B. Magnini, F. d'Alché-Buc (Eds.), Machine Learning Challenges. XIII, 462 pages. 2006. (Sublibrary LNAI).

Vol. 3943: N. Guelfi, A. Savidis (Eds.), Rapid Integration of Software Engineering Techniques. X, 289 pages. 2006.

Vol. 3942: Z. Pan, R. Aylett, H. Diener, X. Jin, S. Göbel, L. Li (Eds.), Technologies for E-Learning and Digital Entertainment. XXV, 1396 pages. 2006.

Vol. 3941: S.W. Gilroy, M.D. Harrison (Eds.), Interactive Systems. XI, 267 pages. 2006.

Vol. 3940: C. Saunders, M. Grobelnik, S. Gunn, J. Shawe-Taylor (Eds.), Subspace, Latent Structure and Feature Selection. X, 209 pages. 2006.

Vol. 3939: C. Priami, L. Cardelli, S. Emmott (Eds.), Transactions on Computational Systems Biology IV. VII, 141 pages. 2006. (Sublibrary LNBI).

Vol. 3936: M. Lalmas, A. MacFarlane, S. Rüger, A. Tombros, T. Tsikrika, A. Yavlinsky (Eds.), Advances in Information Retrieval. XIX, 584 pages. 2006.

Vol. 3935: D. Won, S. Kim (Eds.), Information Security and Cryptology - ICISC 2005. XIV, 458 pages. 2006.

Vol. 3934: J.A. Clark, R.F. Paige, F.A. C. Polack, P.J. Brooke (Eds.), Security in Pervasive Computing. X, 243 pages. 2006.

Vol. 3933: F. Bonchi, J.-F. Boulicaut (Eds.), Knowledge Discovery in Inductive Databases. VIII, 251 pages. 2006.

Vol. 3931: B. Apolloni, M. Marinaro, G. Nicosia, R. Tagliaferri (Eds.), Neural Nets. XIII, 370 pages. 2006.

Vol. 3930: D.S. Yeung, Z.-Q. Liu, X.-Z. Wang, H. Yan (Eds.), Advances in Machine Learning and Cybernetics. XXI, 1110 pages. 2006. (Sublibrary LNAI).

Vol. 3929: W. MacCaull, M. Winter, I. Düntsch (Eds.), Relational Methods in Computer Science. VIII, 263 pages. 2006.

Vol. 3928: J. Domingo-Ferrer, J. Posegga, D. Schreckling (Eds.), Smart Card Research and Advanced Applications. XI, 359 pages. 2006.

Vol. 3927: J. Hespanha, A. Tiwari (Eds.), Hybrid Systems: Computation and Control. XII, 584 pages. 2006.

Vol. 3925: A. Valmari (Ed.), Model Checking Software. X, 307 pages. 2006.

Vol. 3924: P. Sestoft (Ed.), Programming Languages and Systems. XII, 343 pages. 2006.

Vol. 3923: A. Mycroft, A. Zeller (Eds.), Compiler Construction. XIII, 277 pages. 2006.

Vol. 3922: L. Baresi, R. Heckel (Eds.), Fundamental Approaches to Software Engineering. XIII, 427 pages. 2006.

Vol. 3921: L. Aceto, A. Ingólfsdóttir (Eds.), Foundations of Software Science and Computation Structures. XV, 447 pages. 2006.

Vol. 3920: H. Hermanns, J. Palsberg (Eds.), Tools and Algorithms for the Construction and Analysis of Systems. XIV, 506 pages. 2006.

Vol. 3918: W.K. Ng, M. Kitsuregawa, J. Li, K. Chang (Eds.), Advances in Knowledge Discovery and Data Mining. XXIV, 879 pages. 2006. (Sublibrary LNAI).

Vol. 3917: H. Chen, F.Y. Wang, C.C. Yang, D. Zeng, M. Chau, K. Chang (Eds.), Intelligence and Security Informatics. XII, 186 pages. 2006.

Vol. 3916: J. Li, Q. Yang, A.-H. Tan (Eds.), Data Mining for Biomedical Applications. VIII, 155 pages. 2006. (Sublibrary LNBI).

Vol. 3915: R. Nayak, M.J. Zaki (Eds.), Knowledge Discovery from XML Documents. VIII, 105 pages. 2006.

Vol. 3914: A. Garcia, R. Choren, C. Lucena, P. Giorgini, T. Holvoet, A. Romanovsky (Eds.), Software Engineering for Multi-Agent Systems IV. XIV, 255 pages. 2006.

Vol. 3911: R. Wyrzykowski, J. Dongarra, N. Meyer, J. Waśniewski (Eds.), Parallel Processing and Applied Mathematics. XXIII, 1126 pages. 2006.

Vol. 3910: S.A. Brueckner, G.D.M. Serugendo, D. Hales, F. Zambonelli (Eds.), Engineering Self-Organising Systems. XII, 245 pages. 2006. (Sublibrary LNAI).

Vol. 3909: A. Apostolico, C. Guerra, S. Istrail, P. Pevzner, M. Waterman (Eds.), Research in Computational Molecular Biology. XVII, 612 pages. 2006. (Sublibrary LNBI).

Vol. 3908: A. Bui, M. Bui, T. Böhme, H. Unger (Eds.), Innovative Internet Community Systems. VIII, 207 pages. 2006.

Vol. 3907: F. Rothlauf, J. Branke, S. Cagnoni, E. Costa, C. Cotta, R. Drechsler, E. Lutton, P. Machado, J.H. Moore, J. Romero, G.D. Smith, G. Squillero, H. Takagi (Eds.), Applications of Evolutionary Computing. XXIV, 813 pages. 2006.

Vol. 3906: J. Gottlieb, G.R. Raidl (Eds.), Evolutionary Computation in Combinatorial Optimization. XI, 293 pages. 2006.

Vol. 3905: P. Collet, M. Tomassini, M. Ebner, S. Gustafson, A. Ekárt (Eds.), Genetic Programming. XI, 361 pages. 2006.

Vol. 3904: M. Baldoni, U. Endriss, A. Omicini, P. Torroni (Eds.), Declarative Agent Languages and Technologies III. XII, 245 pages. 2006. (Sublibrary LNAI).

Vol. 3903: K. Chen, R. Deng, X. Lai, J. Zhou (Eds.), Information Security Practice and Experience. XIV, 392 pages. 2006.

Vol. 3902: R. Kronland-Martinet, T. Voinier, S. Ystad (Eds.), Computer Music Modeling and Retrieval. XI, 275 pages. 2006.

Vol. 3901: P.M. Hill (Ed.), Logic Based Program Synthesis and Transformation. X, 179 pages. 2006.

Vol. 3900: F. Toni, P. Torroni (Eds.), Computational Logic in Multi-Agent Systems. XVII, 427 pages. 2006. (Sublibrary LNAI).

Vol. 3899: S. Frintrop, VOCUS: A Visual Attention System for Object Detection and Goal-Directed Search. XIV, 216 pages. 2006. (Sublibrary LNAI).

Vol. 3898: K. Tuyls, P.J. 't Hoen, K. Verbeeck, S. Sen (Eds.), Learning and Adaption in Multi-Agent Systems. X, 217 pages. 2006. (Sublibrary LNAI).

Vol. 3897: B. Preneel, S. Tavares (Eds.), Selected Areas in Cryptography. XI, 371 pages. 2006.

Preface

In the past few years, intelligence and security informatics (ISI) research, which is concerned with the study of the development and use of advanced information technologies and systems for national and international security-related applications, has experienced tremendous growth and attracted substantial interest from academic researchers in related fields as well as practitioners from both government agencies and industry. The ISI community is maturing, and a core set of research methodologies and technical approaches has emerged and is becoming the underpinning of ISI research.

The first two meetings (ISI 2003 and ISI 2004) in the ISI symposium and conference series were held in Tucson, Arizona. With sponsorship by the IEEE Intelligent Transportation Systems Society, ISI 2005 was held in Atlanta, Georgia. Building on the momentum of these ISI meetings, we held ISI 2006 in San Diego, California, in May 2006. In addition to the established and emerging ISI technical research topics, ISI 2006 included a track on terrorism informatics, which is a new stream of terrorism research leveraging the latest advances in social science methodologies, and information technologies and tools.

ISI 2006 was jointly hosted by the University of California, Irvine (UCI); the University of Texas at Dallas (UTD); and the University of Arizona (UA). The two-day program included one plenary panel discussion session focusing on the perspectives and future research directions of the government-funding agencies, several invited panel sessions, 69 regular papers, and 56 posters. In addition to the main sponsorship from the National Science Foundation, the Intelligence Technology Innovation Center, and the U.S. Department of Homeland Security, the conference was also co-sponsored by several units within the three hosting universities, including: the ResCUE project at the California Institute of Telecommunications and Information Technology (Calit2) at UCI, the Database Research Group in the Bren School of Information and Computer Sciences at UCI; the Eller College of Management and the Management Information Systems Department at UA; the NSF COPLINK Center of Excellence at UA; the Artificial Intelligence Laboratory at UA; the Intelligent Systems and Decisions Laboratory at UA; and the Program for Advanced Research in Complex Systems at UA. We also thank the Public Health Foundation Enterprises (PHFE) Management Solutions and the Chesapeake Innovation Center for their generous support.

We wish to express our gratitude to all members of the ISI 2006 Program Committee and additional reviewers who provided high-quality, constructive review comments under an unreasonably short lead-time. Our special thanks go to Edna Reid, who recruited high-caliber contributors from the terrorism informatics research community and helped process submissions in the terrorism informatics area. We wish to express our gratitude to Quent Cassen, Jean Chin, Catherine Larson, Priscilla Rasmussen, and Shing Ka Wu for providing excellent conference logistics support. ISI 2006 was co-located with the 7th Annual National Conference on Digital Government Research (DG.O). We wish to thank the DG.O organizers and support staff for their cooperation and assistance. We also would like to thank the Springer LNCS editorial and production staff for their professionalism and continuous support of the ISI symposium and conference series.

Our sincere gratitude goes to all of the sponsors. Last, but not least, we thank Larry Brandt, Art Becker, Robert Ross, Valerie Gregg, and Joshua Sinai for their strong and continuous support of the ISI series and other related ISI research.

May 2006

Sharad Mehrotra
Daniel Zeng
Hsinchun Chen
Bhavani Thuraisingham
Fei-Yue Wang

Organization

ISI 2006 Organizing Committee

Conference Co-chairs:

Hsinchun Chen	University of Arizona
Bhavani Thuraisingham	University of Texas at Dallas
Feiyue Wang	Chinese Academy of Sciences and University of Arizona

Program Co-chairs:

Sharad Mehrotra	University of California, Irvine
Daniel Zeng	University of Arizona

Government Liaisons:

Larry Brandt	National Science Foundation
Art Becker	Intelligence Technology Innovation Center
Valerie Gregg	University of Southern California
Joshua Sinai	Logos Technologies

Local Committee Arrangements Co-chairs:

Quent Cassen	University of California, Irvine
Cathy Larson	University of Arizona
Priscilla Rasmussen	Academic and Research Conference Services

Terrorism Informatics Track Coordinator:

Edna Reid	University of Arizona

ISI 2006 Program Committee

Yigal Arens	University of Southern California
Homa Atabakhsh	University of Arizona
Antonio Badia	University of Louisville
Pierre Baldi	University of California, Irvine
Judee Burgoon	University of Arizona
Carter Butts	University of California, Irvine
Guoray Cai	Pennsylvania State University
Michael Chau	University of Hong Kong
Sudarshan S. Chawathe	University of Maine
Lee-Feng Chien	Academia Sinica, Taiwan
Wingyan Chung	University of Texas at El Paso
Ruwei Dai	Chinese Academy of Sciences
Chris Demchak	University of Arizona
James Ellis	National Memorial Institute for the Prevention of Terrorism
Johannes Gehrke	Cornell University
Jason Geng	Chinese Academy of Sciences
Mark Goldberg	Rensselaer Polytechnic Institute
Bob Grossman	University of Illinois at Chicago
Jiawei Han	University of Illinois at Urbana-Champaign
Alan R. Hevner	University of South Florida
Paul Hu	University of Utah
Zan Huang	Pennsylvania State University
Paul Kantor	Rutgers University
Hillol Kargupta	University of Maryland, Baltimore County
Moshe Koppel	Bar-Ilan University, Israel
Don Kraft	Louisiana State University
Seok-Won Lee	University of North Carolina at Charlotte
Leslie Lenert	University of California, San Diego
Gondy Leroy	Claremont Graduate University
Ee-peng Lim	Nanyang Technological University, Singapore
Chienting Lin	Pace University
Ruqian Lu	Chinese Academy of Sciences
Cecil Lynch	University of California at Davis
Brinton Milward	University of Arizona
Pitu Mirchandani	University of Arizona
Gheorghe Muresan	Rutgers University
Clifford Neuman	University of Southern California
Greg Newby	University of Alaska, Fairbanks
Jay Nunamaker	University of Arizona
Joon S. Park	Syracuse University
Ganapati P. Patil	Pennsylvania State University
Peter Probst	ISTPV
Ram Ramesh	State University of New York at Buffalo
H. Raghav Rao	State University of New York at Buffalo

Mirek Riedewald	Cornell University
Fred Roberts	Rutgers University
Dmitri Roussinov	Arizona State University
Raghu Santanam	Arizona State University
J. Chris Scott	National ICT Australia
Yael Shahar	International Policy Institute for Counter-Terrorism
Raj Sharman	State University of New York at Buffalo
Amit Sheth	University of Georgia
Charles Shoniregun	University of East London
Elizabeth Shriberg	Stanford Research Institute
Andrew Silke	University of East London, UK
David Skillicorn	Queen's University, Canada
Katia Sycara	Carnegie Mellon University
Clark Thomborson	University of Auckland
Paul Thompson	Dartmouth College
Nalini Venkatasubramanian	University of California, Irvine
Ajay Vinze	Arizona State University
Jue Wang	Chinese Academy of Sciences
Ke Wang	Simon Fraser University, Canada
Bob Welty	San Diego State University
Andrew Whinston	University of Texas at Austin
Jennifer Xu	Bentley College
Chris Yang	Chinese University of Hong Kong
Bulent Yener	Rensselaer Polytechnic Institue
Mohammed Zaki	Rensselaer Polytechnic Institute
Huimin Zhao	University of Wisconsin, Milwaukee
Lina Zhou	University of Maryland at Baltimore County
William Zhu	University of Auckland

Additional Reviewers

Ahmed Abbasi	University of Arizona
Naveen Ashish	University of California, Irvine
Wei Chang	University of Arizona
Stella Chen	University of California, Irvine
Amit Deokar	University of Arizona
Mayur Deshpande	University of California, Irvine
Joel Helquist	University of Arizona
Bijit Hore	University of California, Irvine
Daning Hu	University of Arizona
Hojjat Jafarpour	University of California, Irvine
Ravi Jammalamadaka	University of California, Irvine
Dmitri Kalashnikov	University of California, Irvine
Siddharth Kaza	University of Arizona
Jiexun Li	University of Arizona
Xin Li	University of Arizona
Ming Lin	University of Arizona
Hsin-Min Lu	University of Arizona
Jian Ma	University of Arizona
Yiming Ma	University of California, Irvine
Dani Massaguer	University of California, Irvine
Tom Meservy	University of Arizona
Mirko Montanari	University of California, Irvine
Mark Patton	University of Arizona
Jialun Qin	University of Arizona
Tiantian Qin	University of Arizona
Rob Schumaker	University of Arizona
Dawit Seid	University of California, Irvine
Aaron Sun	University of Arizona
Alan Wang	University of Arizona
Jinsu Wang	University of California, Irvine
Bo Xing	University of California, Irvine
Ping Yan	University of Arizona
Xingbo Yu	University of California, Irvine
Yilu Zhou	University of Arizona

Table of Contents

Part I: Long Papers

Intelligence Analysis and Knowledge Discovery

Access Control, Privacy, and Cyber Trust

Surveillance and Emergency Response

Infrastructure Protection and Cyber Security

Terrorism Informatics and Countermeasures

Emerging Applications

Part II: Short Papers

Data Analysis, Knowledge Discovery, and Information Dissemination

Access Control, Privacy, and Cyber Trust

Surveillance, Bioterrorism, and Emergency Response